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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/865,917	05/24/2001	Gianpaolo Barozzi	CISCP677	5323
26541	7590	10/07/2004	EXAMINER PHAN, HANH	
RITTER, LANG & KAPLAN 12930 SARATOGA AE. SUITE D1 SARATOGA, CA 95070			ART UNIT 2633	
PAPER NUMBER				

DATE MAILED: 10/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/865,917

Applicant(s)

BAROZZI ET AL.

Examiner

Hanh Phan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,6-9,12-15,17-20 and 22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,6-9,12-15,17-20 and 22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is responsive to the Amendment filed on 07/30/2004.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 6-9, 12-15, 17-20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugaya et al (US Patent No. 5,903,385) in view of Shimojoh et al (US Patent No. 6,344,914).

Regarding claims 1, 7, 13 and 18, referring to Figures 6, 7, 9 and 12, Sugaya discloses an optical power control system configured for use with a wavelength division demultiplexer, the optical power control system comprising:

a plurality of photodetectors (i.e., a plurality of photodetectors PD1, PD2,..., PDn, Fig. 9) connected so as to monitor output power on a plurality of outputs of the demultiplexer (i.e., optical multiplexer 21, Fig. 7), each of the outputs carrying a different wavelength channel; and

a control system (i.e., control circuit 44 and pump 45, Figs. 6, 7 and 12) that receive power level indications from the plurality of photodetectors (i.e., a plurality of photodetectors PD1, PD2,..., PDn, Fig. 9), controls a gain of an optical amplification system (i.e., i.e., optical pre-amplifier 61, Fig. 12) providing input to the demultiplexer;

wherein the control system (i.e., control circuit 44 and pump 45, Figs. 6, 7 and 12) sets a gain of the optical amplification system such that a power level indication based on the output powers monitored by the plurality of the photodetectors is set within a desired range (see col. 7, lines 10-40).

Sugaya differs from claims 1, 7, 13 and 18 in that he fails to teach an optical filter and control a tilt of the optical filter and set a tilt of the optical filter such that a difference in the monitored output powers is reduced. However, Shimojoh in US Patent No. 6,344,914 teaches an optical filter (20)(Fig. 12) and control a tilt of the optical filter and set a tilt of the optical filter such that a difference in the monitored output powers is reduced (see Fig. 12, col. 11, lines 16-60). Therefore, it would have been obvious to one having skill in the art at the time the invention was made to incorporate the optical filter and control a tilt of the optical filter and set a tilt of the optical filter such that a difference in the monitored output powers is reduced as taught by Shimojoh in the system Sugaya. One of ordinary skill in the art would have been motivated to do this since Shomojoh suggests in column 11, lines 16-60 that using such an optical filter and control a tilt of the optical filter and set a tilt of the optical filter such that a difference in the monitored output powers is reduced has advantage of allowing providing a gain equalizer which will sufficiently flatten gain and reducing the error signal.

Regarding claims 2, 8, 14 and 19, Sugaya further teaches an average of the output powers monitored by the plurality of photodetectors (Figs. 6, 7, 9 and 12).

Regarding claims 3 and 9, the combination of Sugaya and Shimojoh teaches desired range corresponds to an optical receiver dynamic range (Figs. 6, 7, 9, and 12 of Sygaya and Fig. 12 of Shimojoh).

Regarding claims 6, 12, 17 and 22, the combination of Sugaya and Shimojoh teaches the gain control system sets a tilt of said tilt control filter to reduce a difference in monitored output powers for a highest WDM channel and a lowest VWDM channel (col. 11, lines 16-60 of Shimojoh).

Regarding claims 15 and 20, Sugaya further teaches means (i.e., optical demultiplexer 21, Fig. 7) for separating the multiple WDM channels into individual wavelength signals.

4. Claims 1-3, 6-9, 12-15, 17-20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugaya et al (US Patent No. 5,903,385) in view of Ball et al (US Patent No. 6,151,157).

Regarding claims 1, 7, 13 and 18, referring to Figures 6, 7, 9 and 12, Sugaya discloses an optical power control system configured for use with a wavelength division demultiplexer, the optical power control system comprising:

a plurality of photodetectors (i.e., a plurality of photodetectors PD1, PD2,..., PDn, Fig. 9) connected so as to monitor output power on a plurality of outputs of the demultilexer (i.e., optical multiplexer 21, Fig. 7), each of the outputs carrying a different wavelength channel; and

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a control system (i.e., control circuit 44 and pump 45, Figs. 6, 7 and 12) that receive power level indications from the plurality of photodetectors (i.e., a plurality of photodetectors PD1, PD2,..., PDn, Fig. 9), controls a gain of an optical amplification system (i.e., i.e., optical pre-amplifier 61, Fig. 12) providing input to the demultiplexer;

wherein the control system (i.e., control circuit 44 and pump 45, Figs. 6, 7 and 12) sets a gain of the optical amplification system such that a power level indication based on the output powers monitored by the plurality of the photodetectors is set within a desired range (see col. 7, lines 10-40).

Sugaya differs from claims 1, 7, 13 and 18 in that he fails to teach an optical filter and control a tilt of the optical filter and set a tilt of the optical filter such that a difference in the monitored output powers is reduced. However, Ball in US Patent No. 6,151,157 teaches an optical filter (i.e., gain equalizer module 24, Fig. 2) and control a tilt of the optical filter and set a tilt of the optical filter such that a difference in the monitored output powers is reduced (see Fig. 2, col. 3, lines 60-67, col. 4, lines 1-5 and 62-67, and col. 5, lines 1-10). Therefore, it would have been obvious to one having skill in the art at the time the invention was made to incorporate the optical filter and control a tilt of the optical filter and set a tilt of the optical filter such that a difference in the monitored output powers is reduced as taught by Ball in the system Sugaya. One of ordinary skill in the art would have been motivated to do this since Ball suggests in column 3, lines 60-67, col. 4, lines 1-5 and 62-67, and col. 5, lines 1-10 that using such an optical filter and control a tilt of the optical filter and set a tilt of the optical filter such that a difference

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in the monitored output powers is reduced has advantage of allowing providing a gain equalizer which will sufficiently flatten gain and reducing the error signal.

Regarding claims 2, 8, 14 and 19, Sugaya further teaches an average of the output powers monitored by the plurality of photodetectors (Figs. 6, 7, 9 and 12).

Regarding claims 3 and 9, the combination of Sugaya and Ball teaches desired range corresponds to an optical receiver dynamic range (Figs. 6, 7, 9, and 12 of Sygaya and Fig. 2 of Ball).

Regarding claims 6, 12, 17 and 22, the combination of Sugaya and Ball teaches the gain control system sets a tilt of said tilt control filter to reduce a difference in monitored output powers for a highest WDM channel and a lowest VWDM channel (Fig. 2 of Ball).

Regarding claims 15 and 20, Sugaya further teaches means (i.e., optical demultiplexer 21, Fig. 7) for separating the multiple WDM channels into individual wavelength signals.

Response to Arguments

5. Applicant's arguments with respect to claims 1-3, 6-9, 12-15, 17-20 and 22 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Phan whose telephone number is (571)272-3035.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan, can be reached on (571)272-3022. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-4700.

A handwritten signature in cursive script, appearing to read 'Hanh Phan', is written over a horizontal line.

Hanh Phan

10/06/2004